

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING						FORM 3 AMENDED REPORT					
<b>APPLICATION FOR PERMIT TO DRILL</b>						1. WELL NAME and NUMBER LC Tribal 7-25D-46					
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT ALTAMONT					
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME					
6. NAME OF OPERATOR BILL BARRETT CORP						7. OPERATOR PHONE 303 312-8134					
8. ADDRESS OF OPERATOR 1099 18th Street Ste 2300, Denver, CO, 80202						9. OPERATOR E-MAIL tfallang@billbarrettcorp.com					
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) 2OG0005500			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>					
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')					
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')					
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN') Uintah and Ouray			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>					
20. LOCATION OF WELL		FOOTAGES		QTR-QTR		SECTION		TOWNSHIP		RANGE	MERIDIAN
LOCATION AT SURFACE		1891 FNL 1800 FEL		SWNE		25		4.0 S		6.0 W	U
Top of Uppermost Producing Zone		1980 FNL 1980 FEL		SWNE		25		4.0 S		6.0 W	U
At Total Depth		1980 FNL 1980 FEL		SWNE		25		4.0 S		6.0 W	U
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 1980			23. NUMBER OF ACRES IN DRILLING UNIT 640					
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 2400			26. PROPOSED DEPTH MD: 7809 TVD: 7800					
27. ELEVATION - GROUND LEVEL 6883			28. BOND NUMBER LPM8874725			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-180					
<b>Hole, Casing, and Cement Information</b>											
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement		Sacks	Yield	Weight
COND	26	16	0 - 80	65.0	Unknown	8.8	No Used		0	0.0	0.0
SURF	12.25	9.625	0 - 1800	36.0	J-55 ST&C	8.8	Halliburton Light , Type Unknown		240	3.16	11.0
							Halliburton Premium , Type Unknown		210	1.36	14.8
PROD	8.75	5.5	0 - 7809	17.0	P-110 LT&C	9.6	OTHER		590	2.31	11.0
							OTHER		800	1.42	13.5
<b>ATTACHMENTS</b>											
<b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>											
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)						<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
NAME Venessa Langmacher				TITLE Senior Permit Analyst				PHONE 303 312-8172			
SIGNATURE				DATE 04/11/2014				EMAIL vlangmacher@billbarrettcorp.com			
API NUMBER ASSIGNED 43047544000000				APPROVAL  Permit Manager							

**BILL BARRETT CORPORATION**  
**DRILLING PLAN**

**LC Tribal 7-25D-46**

SWNE, 1891' FNL and 1800' FEL, Section 25, T4S-R6W, USB&M (surface hole)

SWNE, 1980' FNL and 1980' FEL, Section 25, T4S-R6W, USB&M (bottom hole)

Duchesne County, Utah

**1 - 2. Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and Gas and Other Minerals**

<u>Formation</u>	<u>Depth – MD</u>	<u>Depth - TVD</u>
Green River	1,984'	1,982'
Mahogany	2,668'	2,663'
Lower Green River*	3,759'	3,751'
Douglas Creek	4,564'	4,556'
Black Shale	5,342'	5,334'
Castle Peak	5,529'	5,521'
Uteland Butte	5,857'	5,849'
Wasatch*	6,076'	6,068'
TD	7,809'	7,800'

\*PROSPECTIVE PAY

The Wasatch and the Lower Green River are primary objectives for oil/gas.

**3. BOP and Pressure Containment Data**

<u>Depth Intervals</u>	<u>BOP Equipment</u>
0 – 1,800'	No pressure control required
1,800' – TD	11" 5000# Ram Type BOP 11" 5000# Annular BOP
- Drilling spool to accommodate choke and kill lines;	
- Ancillary equipment and choke manifold rated at 5,000 psi. All BOP and BOPE tests will be in accordance with the requirements of onshore Order No. 2;	
- The BLM and the State of Utah Division of Oil, Gas and Mining will be notified 24 hours in advance of all BOP pressure tests.	
- BOP hand wheels may be underneath the sub-structure of the rig if the drilling rig used is set up To operate most efficiently in this manner.	

**4. Casing Program**

<u>Hole Size</u>	<u>SETTING DEPTH</u> <u>(FROM) (TO)</u>		<u>Casing</u> <u>Size</u>	<u>Casing</u> <u>Weight</u>	<u>Casing</u> <u>Grade</u>	<u>Thread</u>	<u>Condition</u>
26"	Surface	80'	16"	65#			
12 1/4"	Surface	1,800'	9 5/8"	36#	J or K 55	ST&C	New
8 3/4"	Surface	TD	5 1/2"	17#	P-110	LT&C	New

Bill Barrett Corporation  
Drilling Program  
LC Tribal 7-25D-46  
Duchesne County, Utah

## 5. Cementing Program

16" Conductor Casing	Grout
9 5/8" Surface Casing	Lead: 240 sx Halliburton Light Premium with additives mixed at 11.0 ppg (yield = 3.16 ft <sup>3</sup> /sx) circulated to surface with 75% excess. TOC @ Surface Tail: 210 sx Halliburton Premium Plus cement with additives mixed at 14.8 ppg (yield = 1.36 ft <sup>3</sup> /sx), calculated hole volume with 75% excess. TOC @ 1,300'
5 1/2" Production Casing	Lead: 590 sx Tuned Light cement with additives mixed at 11.0 ppg (yield = 2.31 ft <sup>3</sup> /sx). TOC @ 1,300' Tail: 800 sx Halliburton Econocem cement with additives mixed at 13.5 ppg (yield = 1.42 ft <sup>3</sup> /sx). Top of cement to be determined by log and sample evaluation; estimated TOC @ 4,842'

## 6. Mud Program

<u>Interval</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u> <u>(API filtrate)</u>	<u>Remarks</u>
0' – 80'	8.3 – 8.8	26 – 36	NC	Freshwater Spud Mud Fluid System
80' – 1,800'	8.3 – 8.8	26 – 36	NC	Freshwater Spud Mud Fluid System
1,800' – TD	8.6 – 9.6	42-52	20 cc or less	DAP Polymer Fluid System
Note: Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kicks" will be available at wellsite. BBC may require minor amounts of diesel to be added to its fluid system in order to reduce torque and drag.				

## 7. Testing, Logging and Core Programs

Cores	None anticipated;
Testing	None anticipated; drill stem tests may be run on shows of interest;
Sampling	30' to 50' samples; surface casing to TD. Preserve samples all show intervals;
Surveys	MWD as needed to land wellbore;
Logging	DIL-GR-SP, FDC-CNL-GR-CALIPER-Pe-Microlog, Sonic-GR (all TD to surface). FMI & Sonic Scanner to be run at geologist's discretion.

## 8. Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures or other hazards are anticipated.

Maximum anticipated bottom hole pressure equals approximately 3894 psi\* and maximum anticipated surface pressure equals approximately 2178 psi\*\* (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

\*Max Mud Wt x 0.052 x TD = A (bottom hole pressure)

\*\*Maximum surface pressure = A – (0.22 x TD)

Bill Barrett Corporation  
Drilling Program  
LC Tribal 7-25D-46  
Duchesne County, Utah

**9. Auxiliary Equipment**

- a) Upper kelly cock; lower Kelly cock will be installed while drilling
  - b) Inside BOP or stab-in valve (available on rig floor)
  - c) Safety valve(s) and subs to fit all string connections in use
- Mud monitoring will be visually observed

**10. Location and Type of Water Supply**

Water for the drilling and completion will be trucked from the Duchesne City Culinary Water Dock located in Sec. 1, T4S, R5W water right number 43-180.

**11. Drilling Schedule**

Location Construction:	To be determined
Spud:	To be determined
Duration:	15 days drilling time
	6 days completion time

T4S, R6W, U.S.B.&amp;M.

BILL BARRETT CORPORATION

Well location, LC TRIBAL #7-25D-46, located as shown in the SW 1/4 NE 1/4 of Section 25, T4S, R6W, U.S.B.&M., Duchesne County, Utah.

## BASIS OF ELEVATION

BENCH MARK (M67) LOCATED IN THE SW 1/4 OF SECTION 9, T5S, R4W, U.S.B.&M., TAKEN FROM THE DUCHESNE SE, QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED ON CAP AS BEING 6097 FEET.

## BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

## LINE TABLE

LINE	DIRECTION	LENGTH
L1	S63°57'06"W	200.45'



SCALE

## CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

ROBERT L. KAY  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 161319  
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING  
85 SOUTH 200 EAST - VERNAL, UTAH 84078  
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 02-26-13	DATE DRAWN: 03-04-13
PARTY T.A. C.A. R.L.L.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE BILL BARRETT CORPORATION	

## LEGEND:

- = 90° SYMBOL  
 = PROPOSED WELL HEAD.  
 = SECTION CORNERS LOCATED.  
 = SECTION CORNERS RE-ESTABLISHED.  
 (Not Set on Ground.)

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 40°06'20.87" (40.105797)	LATITUDE = 40°06'21.74" (40.106039)
LONGITUDE = 110°30'33.68" (110.509356)	LONGITUDE = 110°30'31.37" (110.508714)
NAD 27 (TARGET BOTTOM HOLE)	NAD 27 (SURFACE LOCATION)
LATITUDE = 40°06'21.01" (40.105836)	LATITUDE = 40°06'21.89" (40.106081)
LONGITUDE = 110°30'31.12" (110.508644)	LONGITUDE = 110°30'28.81" (110.508003)

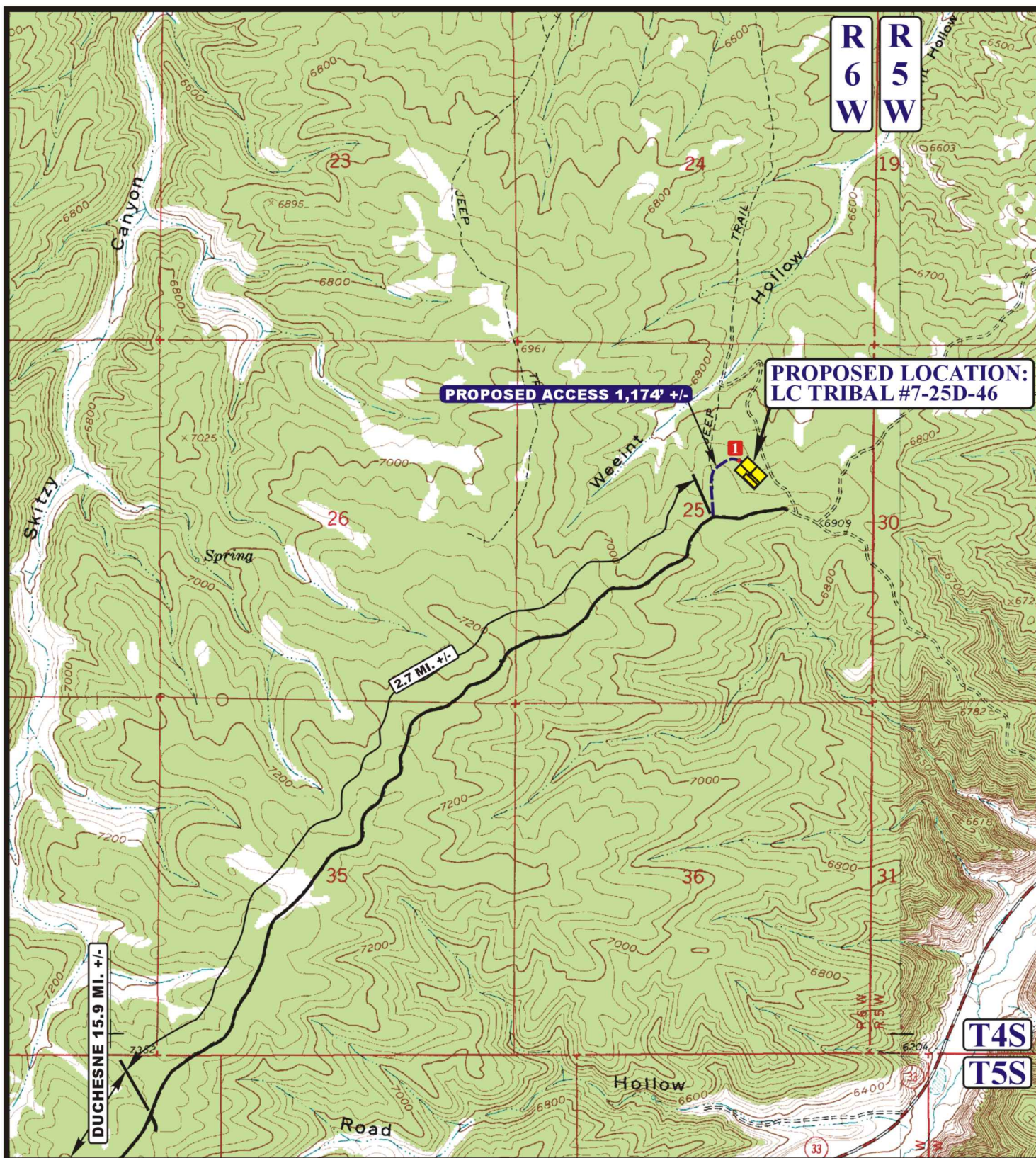
RECEIVED: April 11, 2014



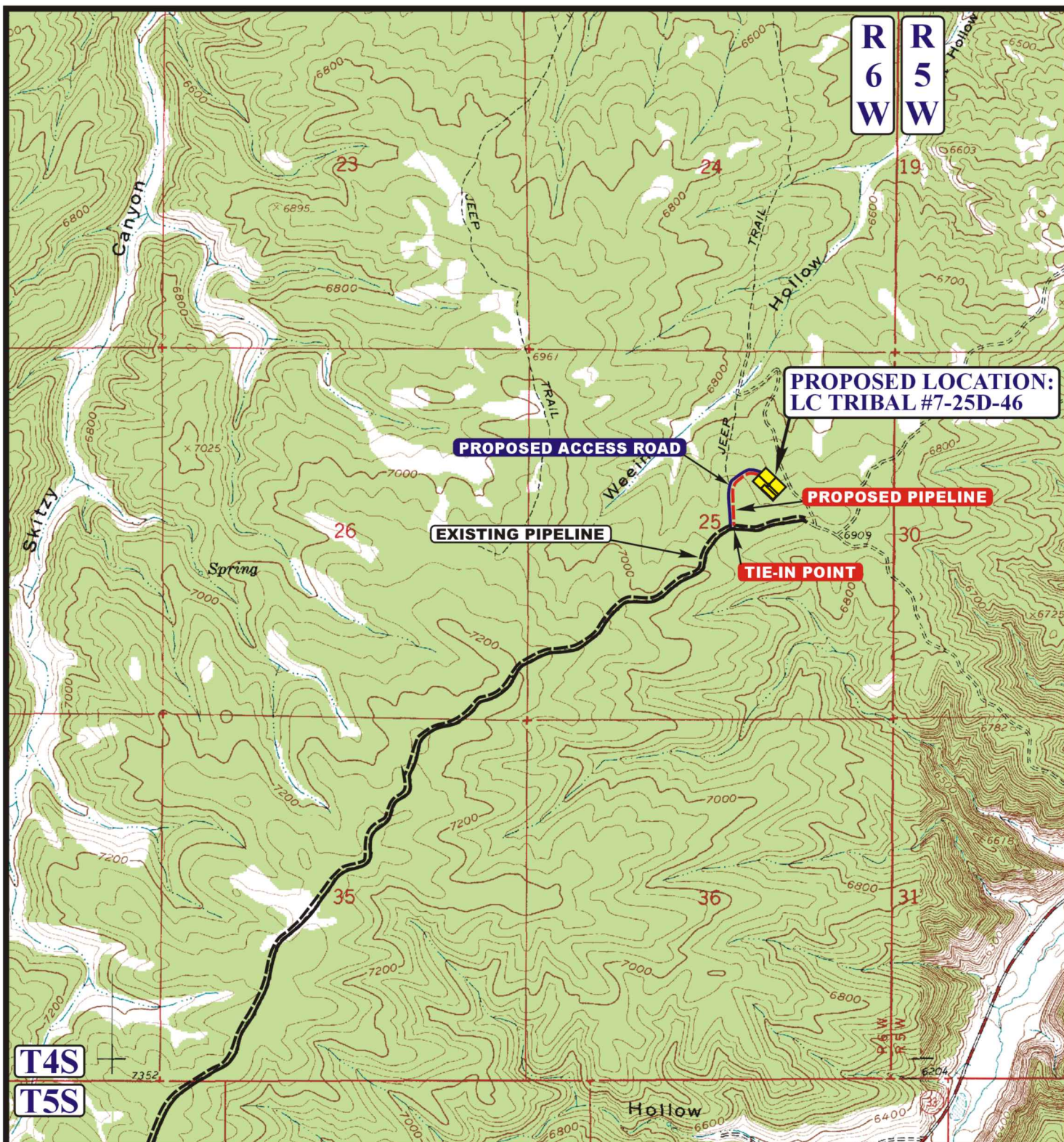


REVISÉ: 00-00-00









**APPROXIMATE TOTAL PIPELINE DISTANCE = 1089' +/-**

**LEGEND:**

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- - - - - PROPOSED PIPELINE



**BILL BARRETT CORPORATION**

**LC TRIBAL #7-25D-46  
SECTION 25, T4S, R6W, U.S.B.&M.  
1891' FNL 1800' FEL**



**Uintah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813

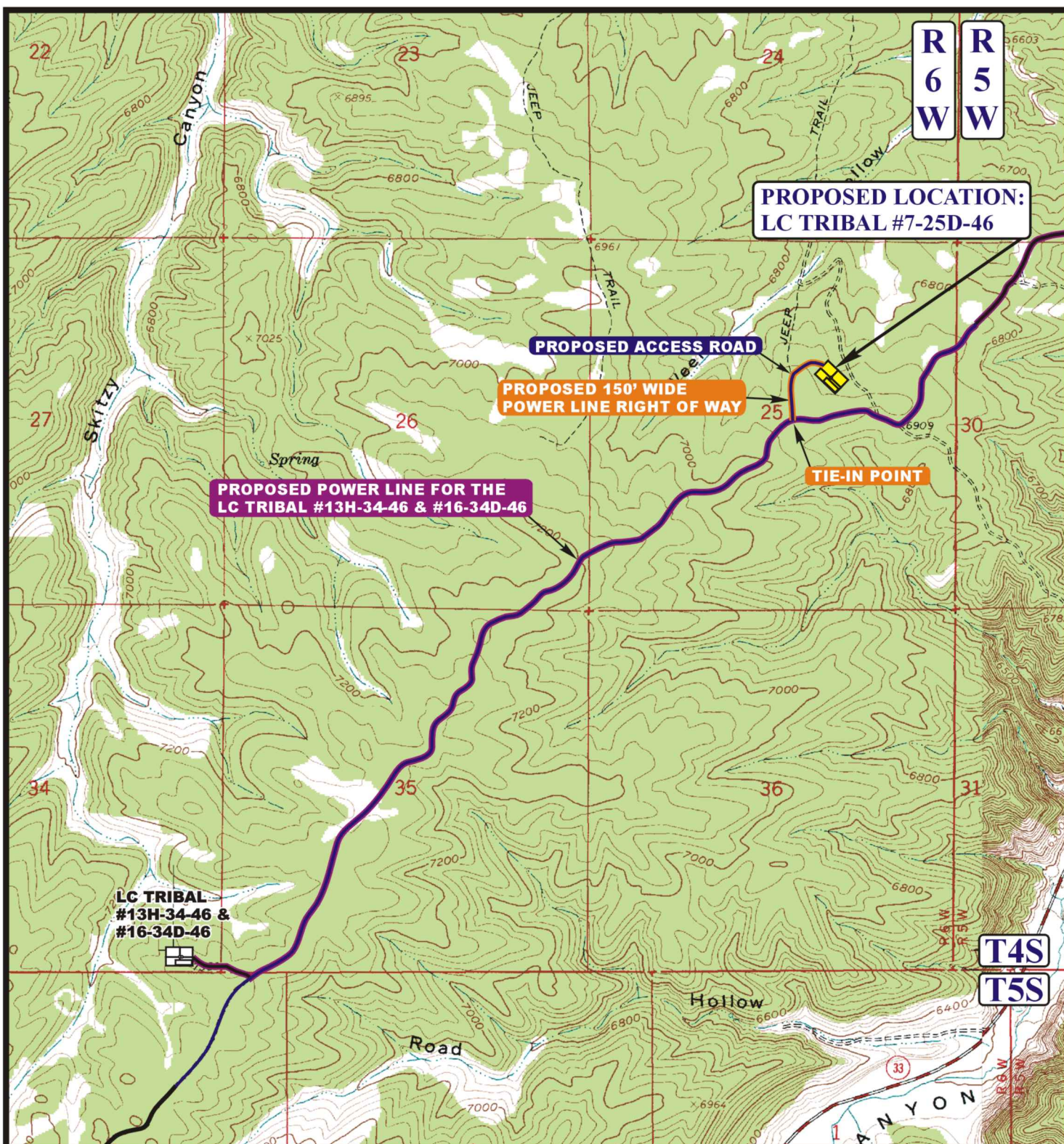
**TOPOGRAPHIC  
MAP**

**03 01 13**  
MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: A.H. REVISED: 00-00-00







**APPROXIMATE TOTAL POWER LINE DISTANCE = 1,184' +/-**

**LEGEND:**

- PROPOSED ACCESS ROAD
- PROPOSED POWER LINE
- - - - - EXISTING POWER LINE
- PROPOSED POWER LINE (SERVICING OTHER WELLS)



**BILL BARRETT CORPORATION**

**LC TRIBAL #7-25D-46**  
**SECTION 25, T4S, R6W, U.S.B.&M.**  
**1891' FNL 1800' FEL**



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**TOPOGRAPHIC**  
**MAP**

**03 01 13**  
 MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: A.H. REVISED: 00-00-00





API Well Number: 43047544000000



Well Name: LC Tribal 7-25D-46  
 Surface Location: SECTION 25 T4S, R6W  
 North American Datum 1983, US State Plane 1983, Utah Southern Zone  
 Ground Elevation: 6883.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 11096736.44 1917918.97 40° 6' 21.740 N 110° 30' 31.370 W  
 Original Well Elev LC Tribal 7-25D-46 @ 6896.0usft (Original Well Elev)



Azimuths to True North  
 Magnetic North: 11.14°  
 Magnetic Field  
 Strength: 51952.5snT  
 Dip Angle: 65.69°  
 Date: 4/8/2014  
 Model: IGRF2010

SECTION 25 T4S, R6W  
 LC Tribal 7-25D-46  
 Design #1  
 14:23, April 08 2014

## WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

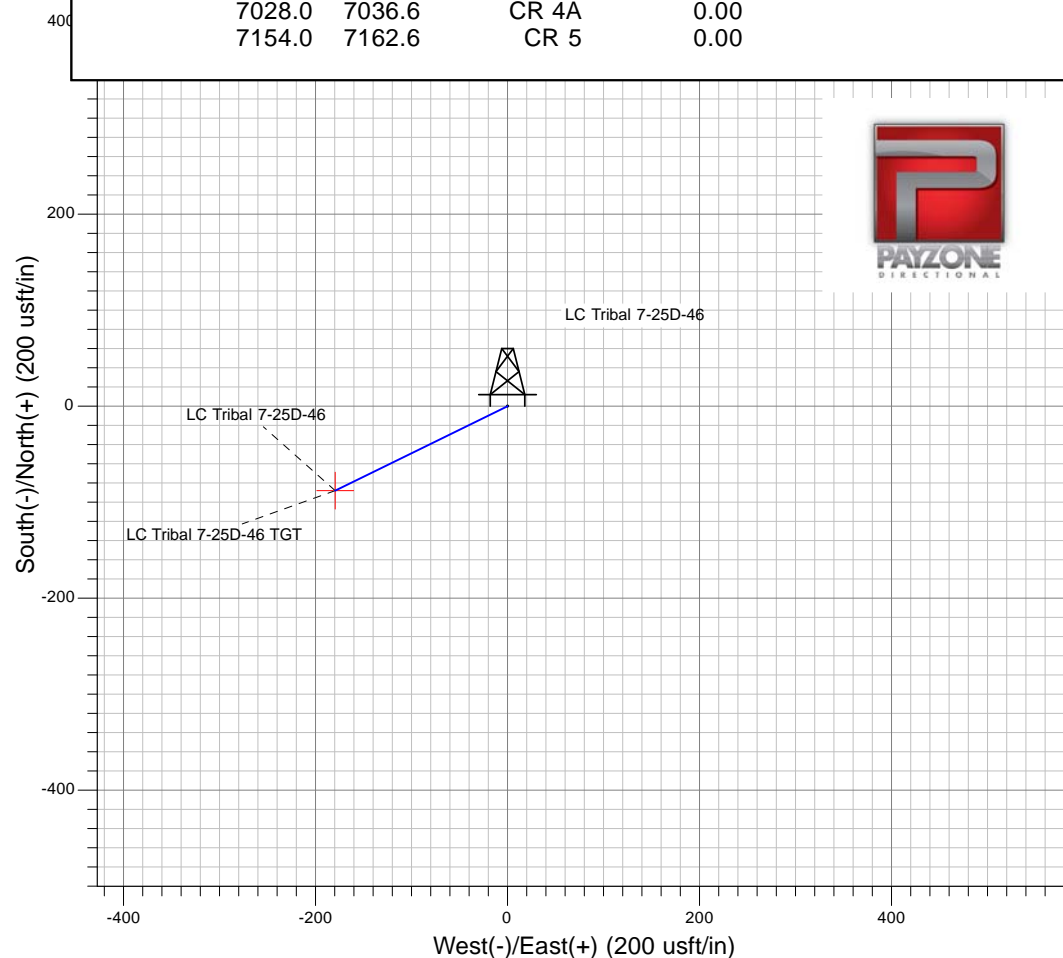
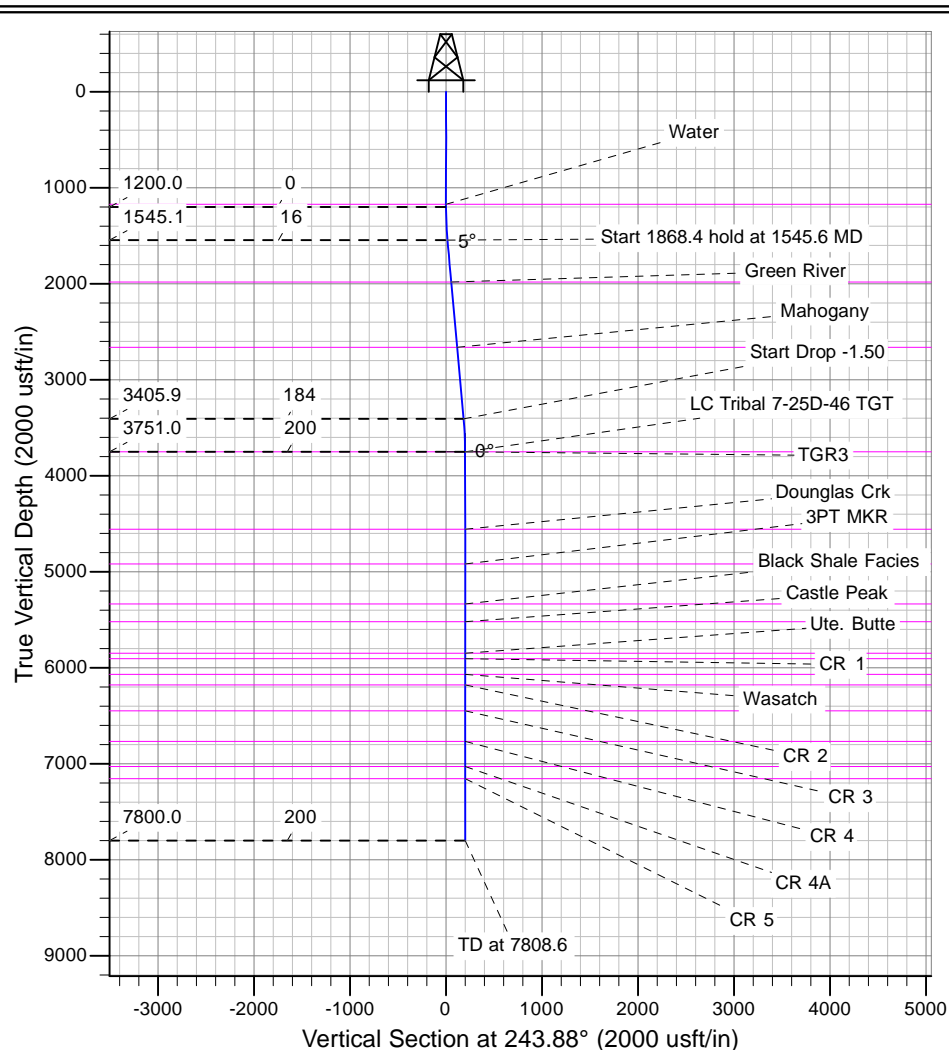
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
LC Tribal 7-25D-46 TGT	1200.0	-88.1	-179.6	11096646.45	1917740.29	40° 6' 20.870 N 110° 30' 33.680 W		Point

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1545.6	5.18	243.88	1545.1	-6.9	-14.0	1.50	243.88	15.6	
4	3414.0	5.18	243.88	3405.9	-81.2	-165.6	0.00	0.00	184.4	
5	3759.6	0.00	0.00	3751.0	-88.1	-179.6	1.50	180.00	200.1	LC Tribal 7-25D-46 TGT
6	7808.6	0.00	0.00	7800.0	-88.1	-179.6	0.00	0.00	200.1	

## FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
1173.0	1173.0	Water	0.00	
1982.0	1984.3	Green River	0.00	
2663.0	2668.1	Mahogany	0.00	
3751.0	3759.6	TGR3	0.00	
4556.0	4564.6	Dounglas Crk	0.00	
4918.0	4926.6	3PT MKR	0.00	
5334.0	5332.6	Black Shale Facies	0.00	
5521.0	5529.6	Castle Peak	0.00	
5849.0	5857.6	Ute. Butte	0.00	
5904.0	5912.6	CR 1	0.00	
6068.0	6076.6	Wasatch	0.00	
6178.0	6186.6	CR 2	0.00	
6448.0	6456.6	CR 3	0.00	
6766.0	6774.6	CR 4	0.00	
7028.0	7036.6	CR 4A	0.00	
7154.0	7162.6	CR 5	0.00	







# Payzone Directional Planning Report



<b>Database:</b>	MasterDB	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 7-25D-46
<b>Company:</b>	Bill Barrett Corporation	<b>TVD Reference:</b>	LC Tribal 7-25D-46 @ 6896.0usft (Original Well Elev)
<b>Project:</b>	Fort Duchesne	<b>MD Reference:</b>	LC Tribal 7-25D-46 @ 6896.0usft (Original Well Elev)
<b>Site:</b>	SECTION 25 T4S, R6W	<b>North Reference:</b>	True
<b>Well:</b>	LC Tribal 7-25D-46	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Fort Duchesne		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Utah Southern Zone		

Site	SECTION 25 T4S, R6W					
Site Position:		Northing:	11,096,736.45 usft	Latitude:	40° 6' 21.740 N	
From:	Lat/Long	Easting:	1,917,918.98 usft	Longitude:	110° 30' 31.370 W	
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.61

Well	LC Tribal 7-25D-46, SHL LAT: 40 06 21.74 LONG: -110 30 31.37					
Well Position	+N/-S	0.0 usft	Northing:	11,096,736.44 usft	Latitude:	40° 6' 21.740 N
	+E/-W	0.0 usft	Easting:	1,917,918.98 usft	Longitude:	110° 30' 31.370 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	6,896.0 usft	Ground Level:	6,883.0 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	4/8/2014	11.14	65.69	51,953

<b>Design</b>	Design #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE		<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	243.88	

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,545.6	5.18	243.88	1,545.1	-6.9	-14.0	1.50	1.50	0.00	243.88	
3,414.0	5.18	243.88	3,405.9	-81.2	-165.6	0.00	0.00	0.00	0.00	
3,759.6	0.00	0.00	3,751.0	-88.1	-179.6	1.50	-1.50	0.00	180.00	LC Tribal 7-25D-46 T
7,808.6	0.00	0.00	7,800.0	-88.1	-179.6	0.00	0.00	0.00	0.00	



# Payzone Directional Planning Report



<b>Database:</b>	MasterDB	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 7-25D-46
<b>Company:</b>	Bill Barrett Corporation	<b>TVD Reference:</b>	LC Tribal 7-25D-46 @ 6896.0usft (Original Well Elev)
<b>Project:</b>	Fort Duchesne	<b>MD Reference:</b>	LC Tribal 7-25D-46 @ 6896.0usft (Original Well Elev)
<b>Site:</b>	SECTION 25 T4S, R6W	<b>North Reference:</b>	True
<b>Well:</b>	LC Tribal 7-25D-46	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,173.0	0.00	0.00	1,173.0	0.0	0.0	0.0	0.00	0.00	0.00
Water									
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	1.50	243.88	1,300.0	-0.6	-1.2	1.3	1.50	1.50	0.00
1,400.0	3.00	243.88	1,399.9	-2.3	-4.7	5.2	1.50	1.50	0.00
1,500.0	4.50	243.88	1,499.7	-5.2	-10.6	11.8	1.50	1.50	0.00
1,545.6	5.18	243.88	1,545.1	-6.9	-14.0	15.6	1.50	1.50	0.00
1,600.0	5.18	243.88	1,599.3	-9.0	-18.4	20.5	0.00	0.00	0.00
1,700.0	5.18	243.88	1,698.9	-13.0	-26.6	29.6	0.00	0.00	0.00
1,800.0	5.18	243.88	1,798.5	-17.0	-34.7	38.6	0.00	0.00	0.00
1,900.0	5.18	243.88	1,898.1	-21.0	-42.8	47.6	0.00	0.00	0.00
1,984.3	5.18	243.88	1,982.0	-24.3	-49.6	55.3	0.00	0.00	0.00
Green River									
2,000.0	5.18	243.88	1,997.7	-25.0	-50.9	56.7	0.00	0.00	0.00
2,100.0	5.18	243.88	2,097.3	-28.9	-59.0	65.7	0.00	0.00	0.00
2,200.0	5.18	243.88	2,196.9	-32.9	-67.1	74.8	0.00	0.00	0.00
2,300.0	5.18	243.88	2,296.4	-36.9	-75.2	83.8	0.00	0.00	0.00
2,400.0	5.18	243.88	2,396.0	-40.9	-83.3	92.8	0.00	0.00	0.00
2,500.0	5.18	243.88	2,495.6	-44.9	-91.5	101.9	0.00	0.00	0.00
2,600.0	5.18	243.88	2,595.2	-48.8	-99.6	110.9	0.00	0.00	0.00
2,668.1	5.18	243.88	2,663.0	-51.5	-105.1	117.0	0.00	0.00	0.00
Mahogany									
2,700.0	5.18	243.88	2,694.8	-52.8	-107.7	119.9	0.00	0.00	0.00
2,800.0	5.18	243.88	2,794.4	-56.8	-115.8	129.0	0.00	0.00	0.00
2,900.0	5.18	243.88	2,894.0	-60.8	-123.9	138.0	0.00	0.00	0.00
3,000.0	5.18	243.88	2,993.6	-64.7	-132.0	147.0	0.00	0.00	0.00
3,100.0	5.18	243.88	3,093.2	-68.7	-140.1	156.1	0.00	0.00	0.00
3,200.0	5.18	243.88	3,192.8	-72.7	-148.2	165.1	0.00	0.00	0.00
3,300.0	5.18	243.88	3,292.4	-76.7	-156.4	174.1	0.00	0.00	0.00
3,400.0	5.18	243.88	3,391.9	-80.7	-164.5	183.2	0.00	0.00	0.00
3,414.0	5.18	243.88	3,405.9	-81.2	-165.6	184.4	0.00	0.00	0.00
3,500.0	3.89	243.88	3,491.6	-84.2	-171.7	191.3	1.50	-1.50	0.00
3,600.0	2.39	243.88	3,591.5	-86.6	-176.6	196.7	1.50	-1.50	0.00
3,700.0	0.89	243.88	3,691.4	-87.9	-179.2	199.6	1.50	-1.50	0.00
3,759.6	0.00	0.00	3,751.0	-88.1	-179.6	200.1	1.50	-1.50	194.89
TGR3 - LC Tribal 7-25D-46 TGT									
3,800.0	0.00	0.00	3,791.4	-88.1	-179.6	200.1	0.00	0.00	0.00
3,900.0	0.00	0.00	3,891.4	-88.1	-179.6	200.1	0.00	0.00	0.00
4,000.0	0.00	0.00	3,991.4	-88.1	-179.6	200.1	0.00	0.00	0.00
4,100.0	0.00	0.00	4,091.4	-88.1	-179.6	200.1	0.00	0.00	0.00





# Payzone Directional Planning Report



<b>Database:</b>	MasterDB	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 7-25D-46
<b>Company:</b>	Bill Barrett Corporation	<b>TVD Reference:</b>	LC Tribal 7-25D-46 @ 6896.0usft (Original Well Elev)
<b>Project:</b>	Fort Duchesne	<b>MD Reference:</b>	LC Tribal 7-25D-46 @ 6896.0usft (Original Well Elev)
<b>Site:</b>	SECTION 25 T4S, R6W	<b>North Reference:</b>	True
<b>Well:</b>	LC Tribal 7-25D-46	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,200.0	0.00	0.00	4,191.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
4,300.0	0.00	0.00	4,291.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
4,400.0	0.00	0.00	4,391.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
4,500.0	0.00	0.00	4,491.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
4,564.6	0.00	0.00	4,556.0	-88.1	-179.6	200.1	0.00	0.00	0.00	
<b>Douglas Crk</b>										
4,600.0	0.00	0.00	4,591.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
4,700.0	0.00	0.00	4,691.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
4,800.0	0.00	0.00	4,791.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
4,900.0	0.00	0.00	4,891.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
4,926.6	0.00	0.00	4,918.0	-88.1	-179.6	200.1	0.00	0.00	0.00	
<b>3PT MKR</b>										
5,000.0	0.00	0.00	4,991.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
5,100.0	0.00	0.00	5,091.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
5,200.0	0.00	0.00	5,191.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
5,300.0	0.00	0.00	5,291.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
5,342.6	0.00	0.00	5,334.0	-88.1	-179.6	200.1	0.00	0.00	0.00	
<b>Black Shale Facies</b>										
5,400.0	0.00	0.00	5,391.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,491.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
5,529.6	0.00	0.00	5,521.0	-88.1	-179.6	200.1	0.00	0.00	0.00	
<b>Castle Peak</b>										
5,600.0	0.00	0.00	5,591.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,691.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,791.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
5,857.6	0.00	0.00	5,849.0	-88.1	-179.6	200.1	0.00	0.00	0.00	
<b>Ute. Butte</b>										
5,900.0	0.00	0.00	5,891.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
5,912.6	0.00	0.00	5,904.0	-88.1	-179.6	200.1	0.00	0.00	0.00	
<b>CR 1</b>										
6,000.0	0.00	0.00	5,991.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
6,076.6	0.00	0.00	6,068.0	-88.1	-179.6	200.1	0.00	0.00	0.00	
<b>Wasatch</b>										
6,100.0	0.00	0.00	6,091.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
6,186.6	0.00	0.00	6,178.0	-88.1	-179.6	200.1	0.00	0.00	0.00	
<b>CR 2</b>										
6,200.0	0.00	0.00	6,191.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,291.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,391.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
6,456.6	0.00	0.00	6,448.0	-88.1	-179.6	200.1	0.00	0.00	0.00	
<b>CR 3</b>										
6,500.0	0.00	0.00	6,491.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,591.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,691.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
6,774.6	0.00	0.00	6,766.0	-88.1	-179.6	200.1	0.00	0.00	0.00	
<b>CR 4</b>										
6,800.0	0.00	0.00	6,791.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,891.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,991.4	-88.1	-179.6	200.1	0.00	0.00	0.00	
7,036.6	0.00	0.00	7,028.0	-88.1	-179.6	200.1	0.00	0.00	0.00	
<b>CR 4A</b>										



# Payzone Directional Planning Report



<b>Database:</b>	MasterDB	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 7-25D-46
<b>Company:</b>	Bill Barrett Corporation	<b>TVD Reference:</b>	LC Tribal 7-25D-46 @ 6896.0usft (Original Well Elev)
<b>Project:</b>	Fort Duchesne	<b>MD Reference:</b>	LC Tribal 7-25D-46 @ 6896.0usft (Original Well Elev)
<b>Site:</b>	SECTION 25 T4S, R6W	<b>North Reference:</b>	True
<b>Well:</b>	LC Tribal 7-25D-46	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,100.0	0.00	0.00	7,091.4	-88.1	-179.6	200.1	0.00	0.00	0.00
7,162.6	0.00	0.00	7,154.0	-88.1	-179.6	200.1	0.00	0.00	0.00
<b>CR 5</b>									
7,200.0	0.00	0.00	7,191.4	-88.1	-179.6	200.1	0.00	0.00	0.00
7,300.0	0.00	0.00	7,291.4	-88.1	-179.6	200.1	0.00	0.00	0.00
7,400.0	0.00	0.00	7,391.4	-88.1	-179.6	200.1	0.00	0.00	0.00
7,500.0	0.00	0.00	7,491.4	-88.1	-179.6	200.1	0.00	0.00	0.00
7,600.0	0.00	0.00	7,591.4	-88.1	-179.6	200.1	0.00	0.00	0.00
7,700.0	0.00	0.00	7,691.4	-88.1	-179.6	200.1	0.00	0.00	0.00
7,808.6	0.00	0.00	7,800.0	-88.1	-179.6	200.1	0.00	0.00	0.00

## Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
LC Tribal 7-25D-46 TGT	0.00	0.00	3,751.0	-88.1	-179.6	11,096,646.45	1,917,740.29	40° 6' 20.870 N	110° 30' 33.680 W
- plan hits target center									
- Point									

## Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,173.0	1,173.0	Water		0.00	
1,984.3	1,982.0	Green River		0.00	
2,668.1	2,663.0	Mahogany		0.00	
3,759.6	3,751.0	TGR3		0.00	
4,564.6	4,556.0	Dounglas Crk		0.00	
4,926.6	4,918.0	3PT MKR		0.00	
5,342.6	5,334.0	Black Shale Facies		0.00	
5,529.6	5,521.0	Castle Peak		0.00	
5,857.6	5,849.0	Ute. Butte		0.00	
5,912.6	5,904.0	CR 1		0.00	
6,076.6	6,068.0	Wasatch		0.00	
6,186.6	6,178.0	CR 2		0.00	
6,456.6	6,448.0	CR 3		0.00	
6,774.6	6,766.0	CR 4		0.00	
7,036.6	7,028.0	CR 4A		0.00	
7,162.6	7,154.0	CR 5		0.00	



## **SURFACE USE PLAN**

**BILL BARRETT CORPORATION**

### **LC Tribal 7-25D-46 Well Pad**

SWNE, 1891' FNL and 1800' FEL, Section 25, T4S-R6W, USB&M (surface hole)

SWNE, 1980' FNL and 1980' FEL, Section 25, T4S-R6W, USB&M (bottom hole)

Duchesne County, Utah

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The onsite inspection for this pad occurred on May 23, 2013. This is a new pad with one proposed well. Plat changes and site specific stipulations requested at the onsite are reflected within this APD and summarized below.

- 1) One 24" culvert proposed at the pad entrance;
- 2) Extend topsoil around pad perimeter in a discontinuous topsoil pile within the 25' surface use perimeter;
- 3) Re-route drainage around pad as shown on Figure 1;
- 4) Production equipment to be located at corner 3 to maximize interim reclamation.

The excavation contractor would be provided with an approved copy of the surface use plan of operations before initiating construction.

1. **Existing Roads:**

- a. The proposed well site is located approximately 18.8 miles southwest of Duchesne, Utah. Maps and directions reflecting the route to the proposed well site are included (see Topographic maps A and B).
- b. The existing State Highway 191 would be utilized for 3.5 miles to an existing BBC maintained access road that provides access to the planned new access road.
- c. Project roads would require routine year-round maintenance to provide year-round access. Maintenance would include inspections, reduction of ruts and holes, maintenance to keep water off the road, replacement of surfacing materials, and clearing of sediment blocking ditches and culverts. Should snow removal become necessary, roads would be cleared with a motor grader and snow would be stored along the down gradient side to prohibit runoff onto the road. Aggregate would be used as necessary to maintain a solid running surface and minimize dust generation.
- d. Vehicle operators would obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions. Travel would be limited to the existing access roads and proposed access road.
- e. The use of roads under State and Duchesne County Road Department maintenance are necessary to access the project area with no improvements proposed. No encroachment or pipeline crossing permits are required.

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- f. All existing roads would be maintained and kept in good repair during all phases of operation.

2. Planned Access Road:

- a. Approximately 1174 feet of new access road trending north then east is planned from an existing BBC maintained access road (see Topographic Map B).
- b. The planned access road would be constructed to a 30-foot ROW width with an 18-foot travel surface. See section 12.d. below for disturbance estimates.
- c. New road construction and improvements of existing roads would typically require the use of motor graders, crawler tractors, 10-yard end dump trucks, and water trucks. The standard methodology for building new roads involves the use of a crawler tractor or track hoe to windrow the vegetation to one side of the road corridor, remove topsoil to the opposing side of the corridor, and rough-in the roadway. This is followed by a grader or bulldozer to establish barrow ditches and crown the road surface. Where culverts are required, a track hoe or backhoe would trench the road and install the culverts. Some hand labor would be required when installing and armoring culverts. Road base or gravel in some instances would be necessary and would be hauled in and a grader used to smooth the running surface.
- d. The proposed road would be constructed to facilitate drainage, control erosion and minimize visual impacts by following natural contours where practical. No unnecessary side-casting of material would occur on steep slopes.
- e. A maximum grade of 10% would be maintained throughout the project with minimum cuts and fills, as necessary, to access the well.
- f. Excess rock from construction of the pad may be used for surfacing of the access road if necessary. Any additional aggregate necessary would be obtained from private or State of Utah lands in conformance with applicable regulations. Aggregate would be of sufficient size, type, and amount to allow all weather access and alleviate dust.
- g. Where topsoil removal is necessary, it would be windrowed (i.e. stockpiled/accumulated along the edge of the ROW and in a low row/pile parallel with the ROW) and re-spread over the disturbed area after construction and backfilling are completed. Vegetation removed from the disturbed area would also be re-spread to provide protection, nutrient recycling, and a seed source for reclamation.
- h. Turnouts are not proposed.
- i. One 24" culvert will be installed along the proposed access road as shown on Topo B. No low-water crossings are anticipated.



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Adequate drainage structures, where necessary, would be incorporated into the remainder of the road to prevent soil erosion and accommodate all-weather traffic.

- j. No gates or cattle guards are anticipated at this time.
- k. Surface disturbance and vehicular travel would be limited to the approved location access road. Adequate signs would be posted, as necessary, to warn the public of project related traffic.
- l. All access roads and surface disturbing activities would conform to the appropriate standard, **no higher than necessary**, to accommodate their intended function adequately as outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, Fourth Edition – Revised 2007.
- m. The operator would be responsible for all maintenance needs of the new access road.

3. Location of Existing Wells (see One-Mile Radius Map):

- a. Following is a list of wells with surface hole locations within a one-mile radius of the proposed pad:
  - i. water wells none
  - ii. injection wells none
  - iii. disposal wells none
  - iv. drilling wells none
  - v. temp shut-in wells none
  - vi. producing wells four
  - vii. abandoned wells two

4. Location of Production Facilities

- a. Surface facilities would consist of a wellhead, separator, gas meter, combustor, (1) 500 gal methanol tank, (1) 500 gal glycol tank, (3) 500 bbl oil tanks, (1) 500 bbl water tank, (1) 500 bbl test tank, (1) 1000 gal propane tank, a pumping unit or Roto-flex unit or ESP or gas lift unit, electrical or with a natural gas or diesel fired motor, solar panels, solar chemical and methanol pumps and one trace pump. See attached proposed facility diagram.
- b. Most wells would be fitted with a pump jack or Roto-flex unit or ESP or gas lift to assist liquid production. The prime mover for pump jacks or Roto-flex units would be small (100 horsepower or less), electric motor or natural gas or diesel fired internal combustion engines. If a gas lift is installed, it would be set on a 10 ft x 25 ft pad and the prime mover would be a natural gas-fired internal combustion engine rated at 200 horsepower or less or an electric compressor of similar horsepower powered by electricity.

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- c. The tank battery would be surrounded by a secondary containment berm of sufficient capacity to contain 1.1 times the entire capacity of the largest single tank and sufficient freeboard to contain precipitation. All loading lines and valves would be placed inside the berm surrounding the tank battery or would utilize catchment basins to contain spills. All liquid hydrocarbon production and measurement shall conform to the provisions of 43 CFR 3162.7-2 and Onshore Oil and Gas Order No. 4 for the measurement of oil.
- d. Gas meter run(s) would be constructed and located on lease within 500 feet of the wellheads. Meter runs would be housed and/or fenced. As practicably feasible, meters would be equipped with remote telemetry monitoring systems. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.
- e. A combustor may be installed at this location for control of associated condensate tank emissions. A combustor ranges from 24 inches to 48 inches wide and is approximately 27 ft tall. Combustor placement would be on existing disturbance.
- f. Approximately 1089 feet of pipeline corridor (see Topographic Map C) containing up to three lines (one gas pipeline up to 8 inch in diameter, one water line up to 4 inch in diameter and one residue line up to 4 inch in diameter) is proposed trending west then south to an existing pipeline. Pipelines would be constructed of steel, polyethylene or fiberglass and would connect to the existing pipeline servicing nearby BBC wells. The pipeline crosses entirely Ute Tribe surface.
- g. The new segment of gas pipeline would be surface laid or buried within a 30 foot wide pipeline corridor adjacent to the proposed access road. Approval to bury pipelines would be obtained from the appropriate surface owner(s). See 12.d below for disturbance estimates.
- h. A slug catcher and/or pig launcher may be installed within the 30 foot pipeline corridor.
- i. Construction of the ROW would temporarily utilize the 30 foot disturbed width for the road for a total disturbed width of 60 foot for the road and pipeline corridors. The use of the proposed well site and access roads would facilitate the staging of the pipeline construction.
- j. Pipeline construction methods and practices would be planned and conducted by BBC with the objective of enhancing reclamation and fostering the re-establishment of the native plant community.
- k. All permanent above-ground structures would be painted a flat, non-reflective color, such as Beetle Green, to match the standard environmental colors. All



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facilities would be painted the designated color at the time of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded.

- l. Site security guidelines identified in 43 CFR 3162.7-5 and Onshore Oil and Gas Order No. 3 would be adhered to. Any modifications to proposed facilities would be reflected in the site security diagram submitted.
- m. The site would require periodic maintenance to ensure that drainages are kept open and free of debris, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.

5. Location and Type of Water Supply:

- a. Water for the drilling and completion would be trucked from any of the following locations:

Water Right No.	Applicant	Allocation	Date	Point of Diversion	Source
42-180	Duchesne City Water Service District	5 cfs	8/2004	Knight Diversion Dam	Duchesne River
43-1202	Myton City	5.49 cfs and 3967 acre ft	3/1986	Knight Diversion Dam	Duchesne River
43-10444	Duchesne County Upper Country Water	2 cfs	1994	Ditch at Source	Cow Canyon Spring
43-10446	Duchesne County Upper Country Water	1.58 cfs	1994	Ditch at Source	Cow Canyon Spring
43-1273	J.J.N.P. Company	7 cfs	1946	Strawberry River	Strawberry River
43-1273	J.J.N.P. Company	4 cfs	6/2010	Strawberry River	Strawberry River
43-2505	McKinnon Ranch Properties, LC	1.3 cfs	4/2011	Pumped from Sec, 17, T4SR6W	Water Canyon Lake
43-12415	Peatross Ranch, LLC	66.44 acre ft	09/2011	Sec 8, T4S-R6W	Strawberry River
43-1628	Douglas E & Yordis Nelson	.1 cfs	1905	Sec 12, T5S-R6W	Nielsen Pond/ Indian Canyon
43-203	Duchesne City	8 cfs	7/1905	Sec 24, T3S-R5W	Water Load Out
43-8342	East Duchesne Culinary	197.64 acre ft	8/1906	Sec 27, T3S-R5W	High Desert Water Load Out
43-11555	East Duchesne Culinary	148.71 acre ft	2/1914	Sec. 27, 73S-R2E	High Desert Water Load Out

- b. No new water well is proposed with this application.

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- c. Should additional water sources be pursued they would be properly permitted through the State of Utah – Division of Water Rights.
- d. Water use would vary in accordance with the formations to be drilled but would be up to approximately 5.41 acre feet for drilling and completion operations.

6. Source of Construction Material:

- a. The use of materials would conform to 43 CFR 3610.2-3.
- b. No construction materials would be removed from the lease or EDA area.
- c. If any additional gravel is required, it would be obtained from a local supplier having a permitted source of materials within the general area.

7. Methods of Handling Waste Disposal:

- a. All wastes associated with this application would be contained and disposed of utilizing approved facilities.

Closed Loop Drilling System

- b. The cuttings would be stored on location in a cuttings containment area and would be buried on-site or hauled to a state-approved disposal facility. If buried on-site, all free fluids would be removed to the extent recoverable and the contents would be solidified, encapsulating the contents within the liner.
- c. The cuttings containment area would be lined with 12 mil (minimum) thickness polyethylene nylon reinforced liner material. The liner(s) would overlay straw, dirt and/or bentonite if rock is encountered during excavation. The liner would overlap the containment area walls and be covered with dirt and/or rocks to hold them in place. No trash, scrap pipe, or other materials that could puncture the liner would be discarded in the pit.
- d. Cuttings would be contained onsite for a period not to exceed 90 days, weather permitting.
- e. To deter livestock from entering the containment area, the three sides exterior to the location would be fenced before drilling starts. Following the conclusion of drilling and completion activities, the fourth side would also be fenced.

Conventional Drilling System

- f. In the event closed loop drilling is not employed, the cuttings would be placed in the reserve pit. The reserve pit would also store water to make up losses and store any excess drilling fluids.

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- g. The reserve pit would be constructed so as not to leak, break or allow any discharge.
- h. The reserve pit would be lined with 12 mil (minimum) thickness polyethylene nylon reinforced liner material. The liner(s) would overlay straw, dirt and/or bentonite if rock is encountered during excavation. The liner would overlap the pit walls and be covered with dirt and/or rocks to hold them in place. No trash, scrap pipe, or other materials that could puncture the liner would be discarded in the pit. A minimum of two feet of free board would be maintained between the maximum fluid level and the top of the reserve pit at all times.
- i. To deter livestock from entering the pit, the three sides exterior to the location would be fenced before drilling starts. Following the conclusion of drilling and completion activities, the fourth side would also be fenced.
- j. Drill cuttings would be contained in the pit for a period not to exceed six months, and then be buried onsite, weather permitting
- k. Hydrocarbons would be removed from the reserve pit would as soon as practical. In the event immediate removal is not practical, the reserve pit would be flagged overhead or covered with wire or plastic mesh to protect migrating birds.

#### Other

- l. Produced fluids from the well other than water would be decanted into steel test tank(s) until such time as construction of production facilities is completed. Any oil that may be accumulated would be transferred to a permanent production tank. Produced water may be used in further drilling and completion activities, evaporated in the pit, or would be hauled to one of the state-approved disposal facilities below:

<b>Disposal Facilities</b>
1. RNI Industries, Inc. – Pleasant Valley Disposal Pits, Sec. 25, 26, 35 & 36, T4S-R3W
2. Pro Water LLC – Blue Bench 13-1 Disposal Well (43-013-30971) NENE, Sec. 13, T3S-R5W
3. RN Industries, Inc. – Bluebell Disposal Ponds, Sec. 2, 4 & 9, T2S-R2W
4. Water Disposal, Inc. – Harmston 1-32-A1 Disposal Well (43-013-30224), UTR #00707, Sec. 32, T1S-R1W
5. Unified Water Pits – Sec. 31, T2S-R4W
6. Iowa Tank Line Pits – 8500 BLM Fence Road, Pleasant Valley
7. Western Water Solutions – Sand Pass Ranch, Sections 9 and 10, T4S-R1W, permit #WD-01-2011
8. Bill Barrett Corporation SWD Wells: 9-36 BTR SWD (43-013-50646), 6-32-36 BTR SWD (43-013-50921) and 16-6D-46 BTR SWD (43-013-50781)



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- g. Any salts and/or chemicals, which are an integral part of the drilling system, would be disposed of in the same manner as the drilling fluid.
- h. Any spills of oil, condensate, produced or frac water, drilling fluids, or other potentially deleterious substances would be recovered and either returned to its origin or disposed of at an approved disposal site, most likely in Duchesne, Utah.
- i. Chemicals on the EPA's Consolidated List of Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) may be used or stored in quantities over reportable quantities. In the course of drilling, BBC could potentially store and use diesel fuel, sand (silica), hydrochloric acid, and CO<sub>2</sub> gas, all described as hazardous substances in 40 CFR Part 302, Section 302.4, in quantities exceeding 10,000 pounds. In addition, natural gas condensate and crude oil and methanol may be stored or used in reportable quantities. Small quantities of retail products (paint/spray paints, solvents {e.g., WD-40}, and lubrication oil) containing non-reportable volumes of hazardous substances may be stored and used on site at any time. No extremely hazardous substances, as defined in 40 CFR 355, would be used, produced, stored, transported or disposed of in association with the drilling, testing or completion of the wells.
- j. Portable toilets and trash containers would be located onsite during drilling and completion operations. A commercial supplier would install and maintain portable toilets and equipment and would be responsible for removing sanitary waste. Sanitary waste facilities (i.e. toilet holding tanks) would be regularly pumped and their contents disposed of at approved sewage disposal facilities in Duchesne, and/or Uintah Counties, in accordance with applicable rules and regulations regarding sewage treatment and disposal. Accumulated trash and nonflammable waste materials would be hauled to an approved landfill once a week or as often as necessary. All debris and waste materials not contained in the trash containers would be cleaned up, removed from the construction ROW, well pad, or worker housing location, and disposed of at an approved landfill. Trash would be cleaned up everyday.
- k. Sanitary waste equipment and trash bins would be removed from the Project Area upon completion of access road or pipeline construction; following drilling and completion operations at an individual well pad; when worker housing is no longer needed; or as required.
- l. A flare pit may be constructed a minimum of 110' from the wellhead(s) and may be used during completion work. In the event a flare pit proves to be unworkable, a temporary flare stack or open top tank would be installed. BBC would flow back as much fluid and gas as possible into pressurized vessels, separating the fluids from the gas. In some instances, due to the completion fluids utilized within the Project Area, it is not feasible to direct the flow stream from the wellbore through pressurized vessels. In such instances BBC proposes to direct the flow to the open top tanks until flow through the pressurized vessels is feasible. At which point the fluid would either be returned to the reserve pit or

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placed into a tank(s). The gas would be directed to the flare pit, flare stack (each with a constant source of ignition), or may be directed into the sales pipeline.

8. Ancillary Facilities:

- a. Garbage containers and portable toilets would be located on the well pad.
- b. On well pads where active drilling and completion is occurring, temporary housing would be provided on location for the well pad supervisor, geologist, tool pusher, and others that are required to be on location at all times. The well pad could include up to five single wide mobile homes or fifth wheel campers/trailers.
- c. A surface powerline corridor 2953 feet in length is proposed for installation by a third-party installer within a 50 foot wide construction corridor adjacent to the proposed access road. Disturbance will be minimal to avoid additional impacts to soils and vegetation by installing the powerline on the surface and raising it into place. See 12.d below for disturbance estimates.

9. Well Site Layout:

- a. The well would be properly identified in accordance with 43 CFR 3162.6.
- b. The pad layout, cross section diagrams and rig layout are enclosed (see Figures 1 and 2).
- c. The pad and road designs are consistent with industry specifications.
- d. The pad has been staked at its maximum size of 400 feet x 270 feet with an inboard reserve pit size of 235 feet x 70 feet x 8 feet deep. See section 12.d below for disturbance estimates.
- e. Within the approved well pad location, a crawler tractor would strip whatever topsoil is present and stockpile it along the edge of the well pad for use during reclamation. Vegetation would be distributed along the sides of the well pad.
- f. Fill from pit excavation would be stockpiled along the edge of the pit and the adjacent edge of the well pad.
- g. Use of erosion control measures, including proper grading to minimize slopes, diversion terraces and ditches, mulching, terracing, riprap, fiber matting, temporary sediment traps, and broad-based drainage dips or low water crossings would be employed by BBC as necessary and appropriate to minimize erosion and surface runoff during well pad construction and operation. Cut and fill slopes would be constructed such that stability would be maintained for the life of the activity.

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- h. All cut and fill slopes would be such that stability can be maintained for the life of the activity.
- i. Diversion ditches would be constructed, if necessary, around the well site to prevent surface waters from entering the well site area.
- j. Water application may be implemented if necessary to minimize the amount of fugitive dust.
- k. All surface disturbing activities would be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specifications in the approved plans.

10. Plan for Restoration of the Surface:

- a. A site specific reclamation plan would be submitted, if requested, within 90 days of location construction to the surface managing agency.
- b. Site reclamation would be accomplished for portions of the well pad not required for the continued operation of the well on this pad within six months of completion, weather permitting.
- c. The operator would control noxious weeds along access road use authorizations and well site by spraying or mechanical removal, according to the Utah Noxious Weed Act and as set forth in the approved surface damage agreements.
- d. Rat and mouse holes would be filled and compacted from bottom to top immediately upon release of the drilling rig from location. Upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1. The reserve pit would be allowed to dry prior to the commencement of backfilling work. No attempts would be made to backfill the reserve pit until it is free of standing water. Once dry, the liner would be torn and perforated before backfilling.
- e. The reserve pit or cuttings containment area, and that portion of the location not needed for production facilities/operations would be recontoured to the approximate natural contours. Areas not used for production purposes would be backfilled and blended into the surrounding terrain, reseeded and erosion control measures installed. Mulching, erosion control measures and fertilization may be required to achieve acceptable stabilization. Back slopes and fore slopes would be reduced as practical and scarified with the contour. The reserved topsoil would be evenly distributed over the slopes and scarified along the contour. Slopes would be seeded with the seed mix specified by the surface owner.
- f. Topsoil salvaged from the drill site and stored for more than one year would be placed at the location indicated on the well site layout drawing and graded to a depth optimum to maintain topsoil viability, seeded with the surface owner



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prescribed seed mixture and covered with mulch for protection from wind and water erosion and to discourage the invasion of weeds.

11. Surface and Mineral Ownership:

- a. Surface ownership – Ute Indian Tribe - 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.
- b. Mineral ownership – Ute Indian Tribe - 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.

12. Other Information:

- a. Montgomery Archeological Consultants has conducted a Class III archeological survey. A copy of the report has been submitted under separate cover to the appropriate agencies by Montgomery as report 13-042 (U-13-MQ-0263i) dated May 7, 2013.
- b. BBC would require that their personnel, contractors, and subcontractors to comply with Federal regulations intended to protect archeological and cultural resources.
- c. Project personnel and contractors would be educated on and subject to the following requirements:
  - No dogs or firearms within the Project Area.
  - No littering within the Project Area.
  - Smoking within the Project Area would only be allowed in off-operator active locations or in specifically designated smoking areas. All cigarette butts would be placed in appropriate containers and not thrown on the ground or out windows of vehicles; personnel and contractors would abide by all fire restriction orders.
  - Campfires or uncontained fires of any kind would be prohibited.
  - Portable generators used in the Project Area would have spark arrestors.
- d. Disturbance estimates:

**Approximate Acreage Disturbances**

Well Pad		4.802	acres
Access	1174 feet	0.808	acres
Pipeline	1089 feet	0.750	acres
Powerline	1184 feet	1.359	acres

**Total                    7.719    acres**

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Surface Use Plan  
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Duchesne County, UT

OPERATOR CERTIFICATION

Certification:

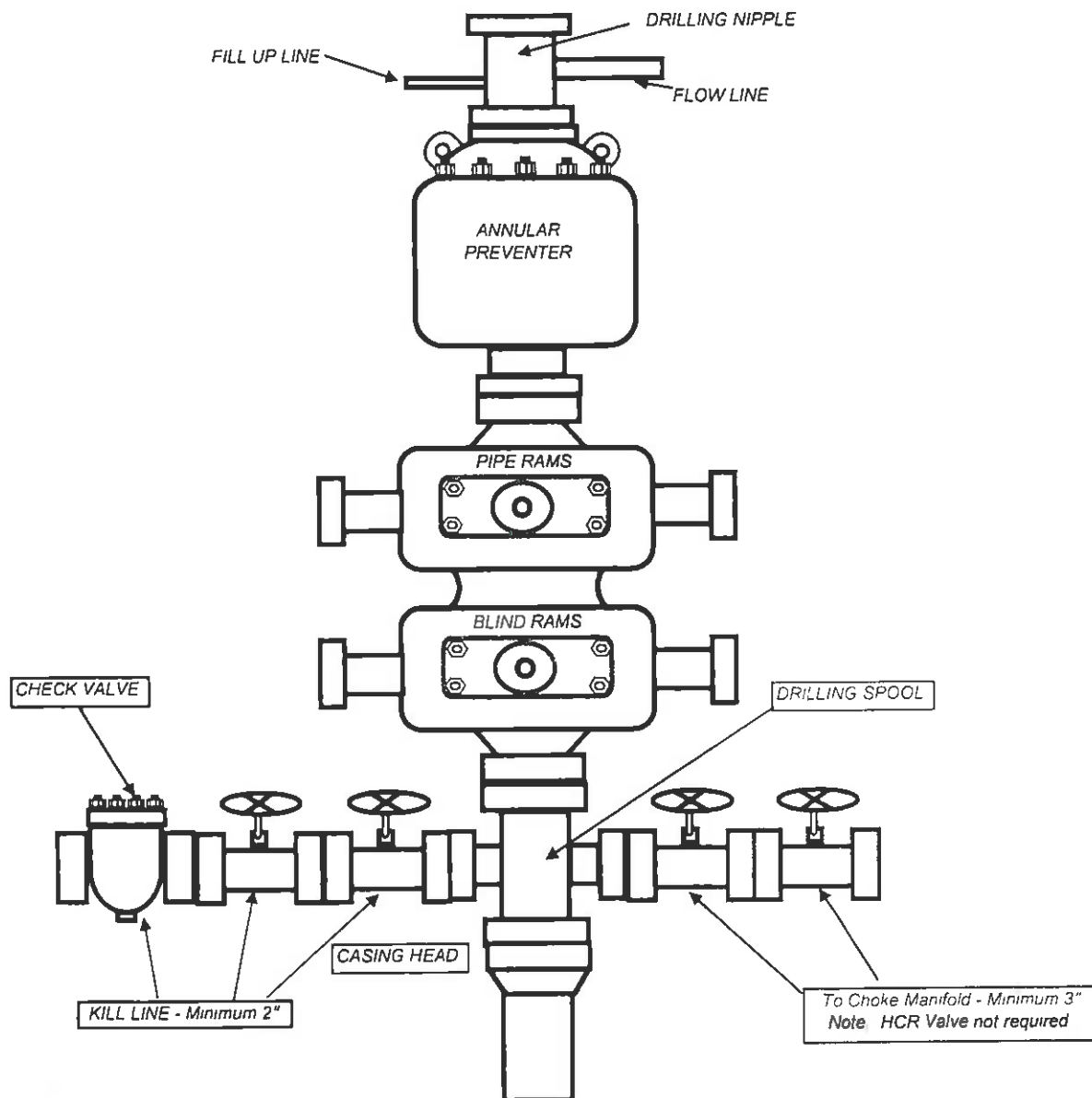
I hereby certify that I, or someone under my direction supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein would be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application and that bond coverage is provided under Bill Barrett Corporations federal nationwide bond. These statements are subject to the provisions of 18 U.S.C. 1001 for the filings of false statements.

Executed this	<u>April 10, 2014</u>
Name:	Venessa Langmacher
Position Title:	Senior Permit Analyst
Address:	1099 18 <sup>th</sup> Street, Suite 2300, Denver, CO 80202
Telephone:	303-312-8172
E-mail:	vlangmacher@billbarrettcorp.com
Field Representative	Kary Eldredge / Bill Barrett Corporation
Address:	1820 W. Highway 40, Roosevelt, UT 84066
Telephone:	435-725-3515 (office); 435-724-6789 (mobile)
E-mail:	keldredge@billbarrettcorp.com

  
\_\_\_\_\_  
Venessa Langmacher, Senior Permit Analyst

## BILL BARRETT CORPORATION

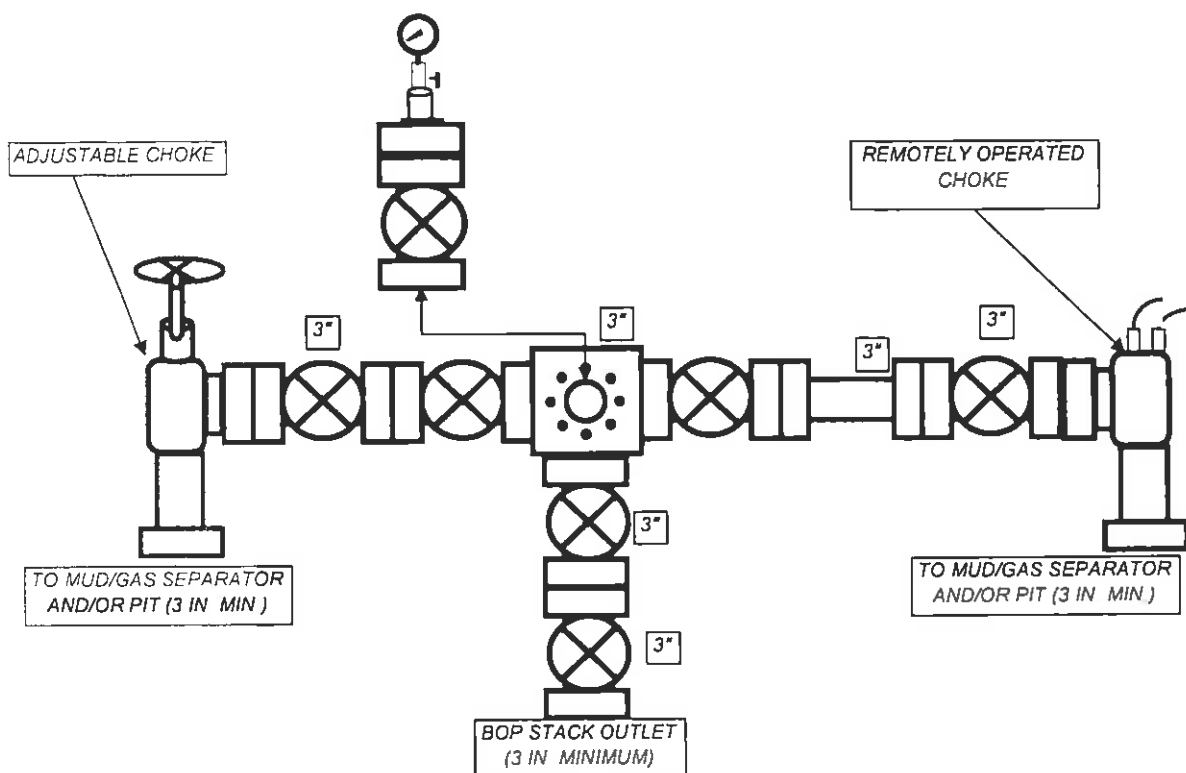
### TYPICAL 5,000 p.s.i. BLOWOUT PREVENTER





## BILL BARRETT CORPORATION

### TYPICAL 5,000 p.s.i. CHOKE MANIFOLD





April 10, 2014

Ms. Diana Mason – Petroleum Technician  
State of Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P. O. Box 145801  
Salt Lake City, Utah 84114-5801

Re: Directional Drilling R649-3-11  
**Lake Canyon Area #7-25D-46 LC Tribal Well**  
Surface: 1,891' FNL & 1,800' FEL, SWNE, 25-T4S-R6W, USM  
Bottom Hole: 1,980' FNL & 1,980' FEL, SWNE, 25-T4S-R6W, USM  
Duchesne County, Utah

Dear Ms. Mason,

Pursuant to the filing of Bill Barrett Corporation's ("BBC") Application for Permit to Drill the above referenced well, we hereby submit this letter in accordance with Oil & Gas Conservation Rules R649-2, R649-3, R649-10 and R649-11, pertaining to the Location and Siting of Wells.

- The proposed location is within our Lake Canyon Area.
- BBC is permitting this well as a directional well in order to minimize surface disturbance. By locating the well at the surface location and directionally drilling from this location, BBC will be able to utilize the existing road and pipelines in the area.
- The well will be drilled under an Exploration and Development Agreement between the Ute Indian Tribe and Ute Distribution Corporation. Crescent Point Energy U.S. Corp owns a right to participate in this well.
- BBC certifies that it is the working interest owner of all lands within 460 feet of the proposed well location, and together with Crescent Point Energy U.S. Corp, we own 100% of the working interest in these lands.

Based on the information provided, BBC requests that the permit be granted pursuant to R649-3-11. Should you have any questions or need further information, please contact me at 303-312-8544.

Sincerely,

David Watts  
Landman

1099 18<sup>TH</sup> STREET  
SUITE 2300  
DENVER, CO 80202  
P 303.293.9100  
F 303.291.0420

**RECEIVED:** April 11, 2014

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**BILL BARRETT CORPORATION****TYPICAL CROSS SECTIONS FOR**

LC TRIBAL #7-25D-46

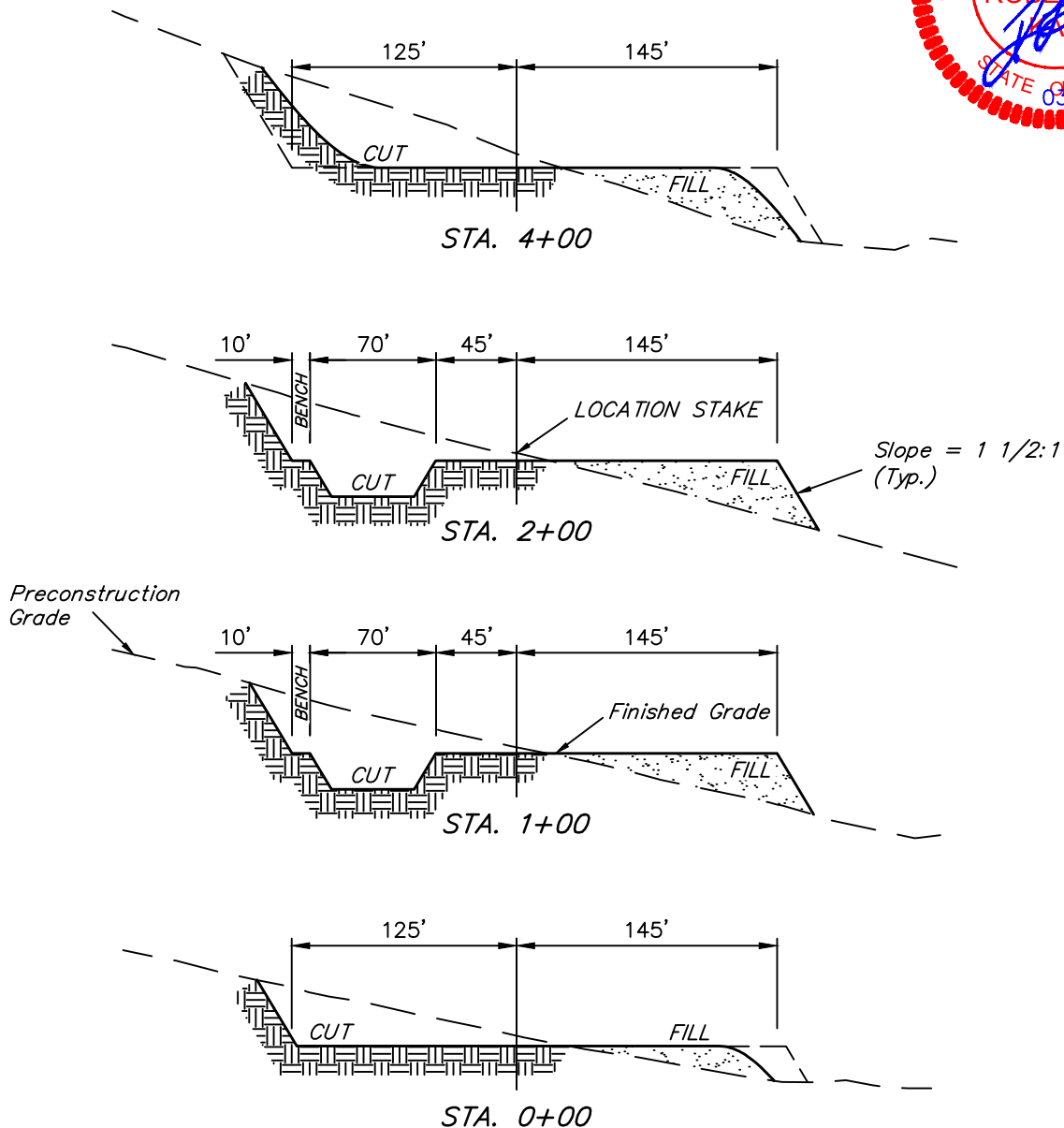
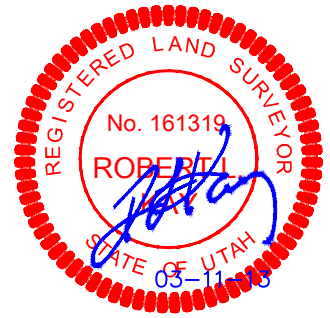
SECTION 25, T4S, R6W, U.S.B.&amp;M.

1891' FNL 1800' FEL

**FIGURE #2**

1" = 40'  
X-Section  
Scale  
1" = 100'

DATE: 03-04-13  
DRAWN BY: R.L.L.

**NOTE:**

Topsoil should not be  
Stripped Below Finished  
Grade on Substructure Area.

**APPROXIMATE ACREAGES**

WELL SITE DISTURBANCE =  $\pm 4.802$  ACRES  
ACCESS ROAD DISTURBANCE =  $\pm 0.775$  ACRES  
PIPELINE DISTURBANCE =  $\pm 0.715$  ACRES  
TOTAL =  $\pm 6.292$  ACRES

**\* NOTE:**

FILL QUANTITY INCLUDES  
5% FOR COMPACTION

**APPROXIMATE YARDAGES**

(12") Topsoil Stripping = 4,950 Cu. Yds.  
Remaining Location = 19,260 Cu. Yds.  
TOTAL CUT = 24,210 CU. YDS.  
FILL = 17,330 CU. YDS.

EXCESS MATERIAL = 6,880 Cu. Yds.  
Topsoil & Pit Backfill = 6,880 Cu. Yds.  
(1/2 Pit Vol.)  
EXCESS UNBALANCE = 0 Cu. Yds.  
(After Interim Rehabilitation)

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

RECEIVED: April 11, 2014

**BILL BARRETT CORPORATION**

## TYPICAL RIG LAYOUT FOR

LC TRIBAL #7-25D-46

SECTION 25, T4S, R6W, U.S.B.&amp;M.

1891' FNL 1800' FEL

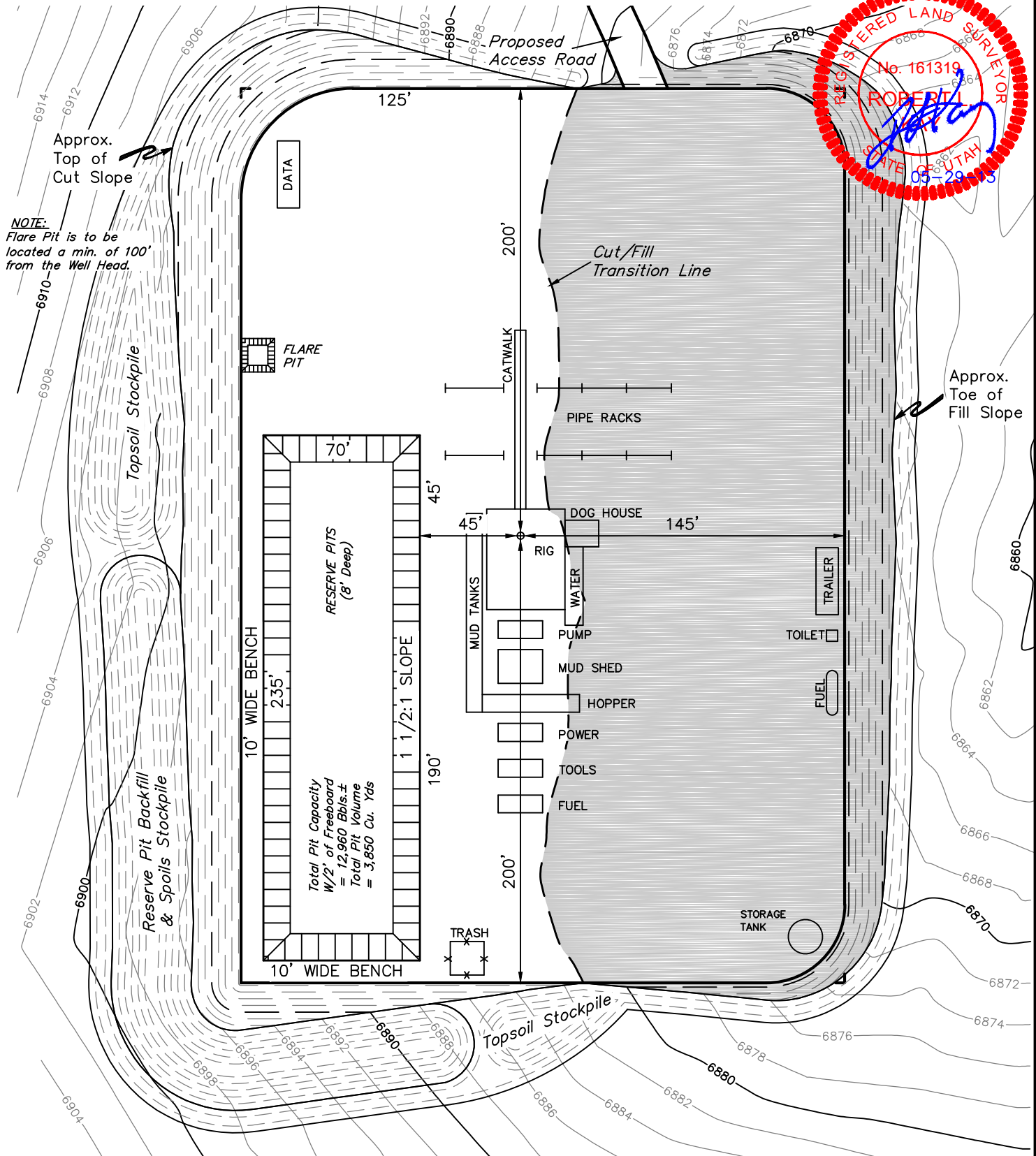
**FIGURE #3**

SCALE: 1" = 60'

DATE: 03-04-13

DRAWN BY: R.L.L.

REV: 05-29-13 B.D.H.

**UINTAH ENGINEERING & LAND SURVEYING**

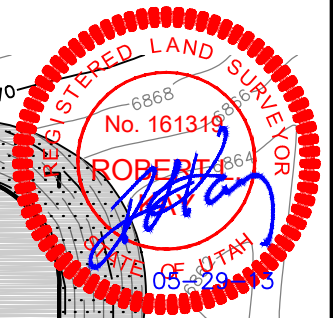
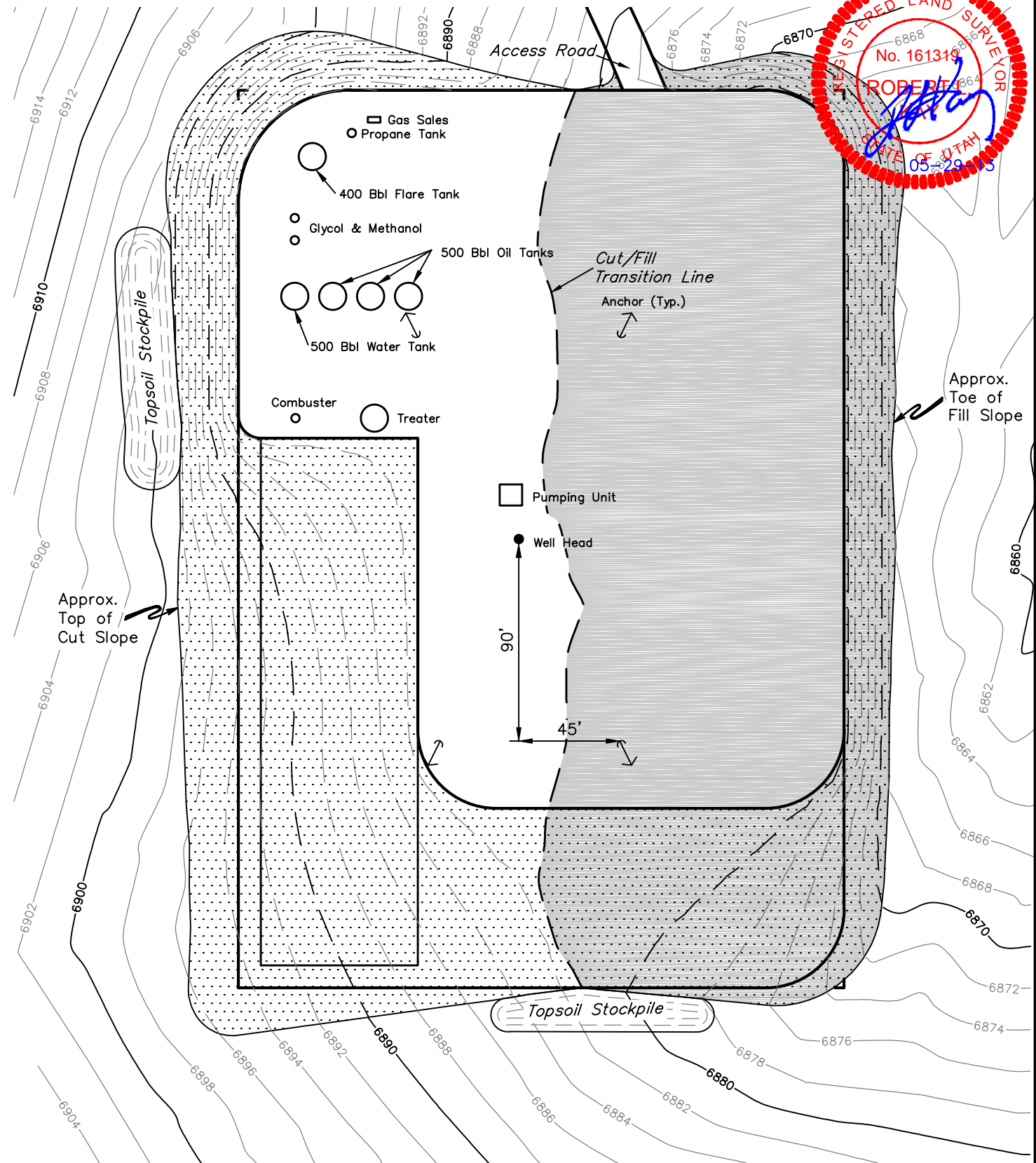
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

**RECEIVED:** April 11, 2014

**BILL BARRETT CORPORATION**  
**INTRERIM RECLAMATION PLAN FOR**  
**LC TRIBAL #7-25D-46**  
**SECTION 25, T4S, R6W, U.S.B.&M.**  
**1891' FNL 1800' FEL**

**FIGURE #4**

SCALE: 1" = 60'  
 DATE: 05-29-13  
 DRAWN BY: B.D.H.



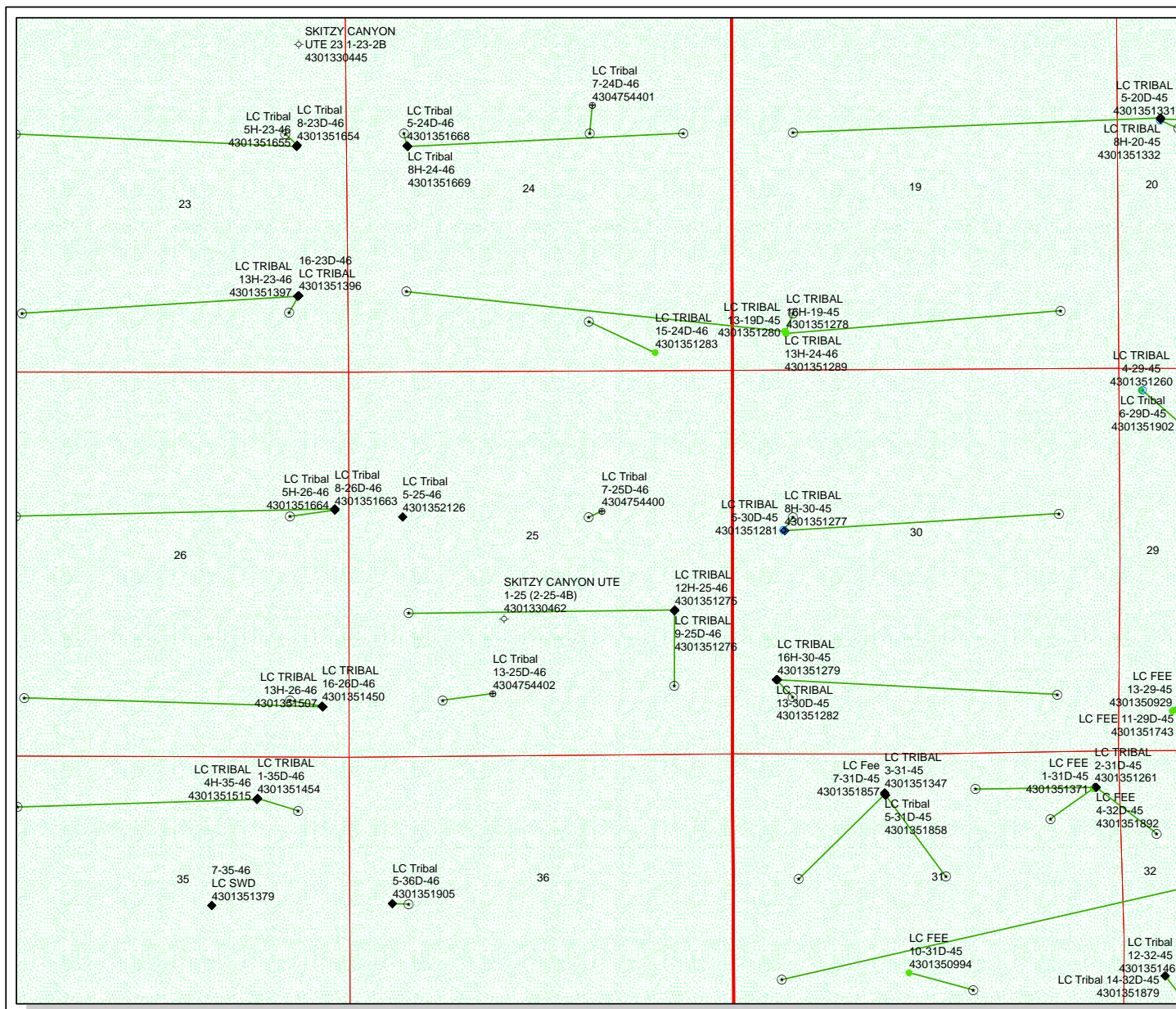
RECLAIMED AREA

**APPROXIMATE ACREAGE**  
 UN-RECLAIMED = ± 1.650 ACRES

**UINTAH ENGINEERING & LAND SURVEYING**  
 85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

RECEIVED: April 11, 2014





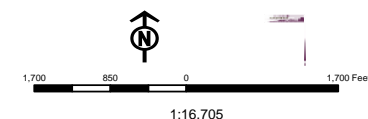
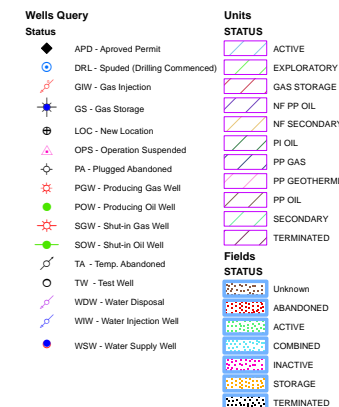
API Number: 4304754400

Well Name: LC Tribal 7-25D-46

Township: T04.0S Range: R06.0W Section: 25 Meridian: U

Operator: BILL BARRETT CORP

Map Prepared: 4/18/2014  
Map Produced by Diana Mason



## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 4/11/2014

API NO. ASSIGNED: 43047544000000

WELL NAME: LC Tribal 7-25D-46

OPERATOR: BILL BARRETT CORP (N2165)

PHONE NUMBER: 303 312-8172

CONTACT: Venessa Langmacher

PROPOSED LOCATION: SWNE 25 040S 060W

Permit Tech Review: ☒

SURFACE: 1891 FNL 1800 FEL

Engineering Review: ☐

BOTTOM: 1980 FNL 1980 FEL

Geology Review: ☒

COUNTY: UINTAH

LATITUDE: 40.10598

LONGITUDE: -110.50863

UTM SURF EASTINGS: 541878.00

NORTHINGS: 4439636.00

FIELD NAME: ALTAMONT

LEASE TYPE: 2 - Indian

LEASE NUMBER: 2OG0005500

PROPOSED PRODUCING FORMATION(S): GREEN RIVER(LWR)-WASATCH

SURFACE OWNER: 2 - Indian

COALBED METHANE: NO

## RECEIVED AND/OR REVIEWED:

☒ PLAT☒ Bond: INDIAN - LPM8874725☐ Potash☐ Oil Shale 190-5☐ Oil Shale 190-3☐ Oil Shale 190-13☒ Water Permit: 43-180☐ RDCC Review:☐ Fee Surface Agreement☐ Intent to Commingle

Commingle Approved

## LOCATION AND SITING:

☐ R649-2-3.

Unit:

☐ R649-3-2. General☐ R649-3-3. Exception☒ Drilling Unit

Board Cause No: Cause 139-87

Effective Date: 12/6/2011

Siting: 4 Wells Per 640 Acres

☒ R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 4 - Federal Approval - dmason  
15 - Directional - dmason

RECEIVED: April 23, 2014



GARY R. HERBERT  
*Governor*

SPENCER J. COX  
*Lieutenant Governor*

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

### Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

## Permit To Drill

\*\*\*\*\*

**Well Name:** LC Tribal 7-25D-46  
**API Well Number:** 43047544000000  
**Lease Number:** 2OG0005500  
**Surface Owner:** INDIAN  
**Approval Date:** 4/23/2014

### Issued to:

BILL BARRETT CORP, 1099 18th Street Ste 2300, Denver, CO 80202

### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 139-87. The expected producing formation or pool is the GREEN RIVER(LWR)-WASATCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

### Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

### Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

### Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil &



Gas website  
at <http://oilgas.ogm.utah.gov>

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

**Approved By:**

A handwritten signature in black ink, appearing to read "J. Rogers", written over a horizontal line.

For John Rogers  
Associate Director, Oil & Gas